

cines are discontinued, others for only a month or two and some patients require the constant use of vaccines. Succeeding courses of treatment seem to relieve more promptly than the first course of treatment, providing there has been no change in the bacteria which are causing the relapse.

## GYNECOLOGY

UNDER THE CHARGE OF

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**Mesodermal Mixed Tumors of the Uterus.**—Although this class of neoplasms is very rarely found in the body of the uterus, a number of cases have been reported, but there has been reported in this country no tumor of the uterus which contains cartilage as a heterogeneous component. Therefore the case of chondrosarcoma of the corpus uteri, originating in the endometrium, that has been reported by PERLSTEIN (*Surg., Gynec. and Obst.*, 1919, xxviii, 43) is of interest both pathologically and clinically. The clinical history is that of a woman, aged fifty-four years, whose chief complaint was profuse bleeding from the vagina at irregular intervals, which she considered as a manifestation of the menopause. Up to the age of fifty-two her menstruation, as a whole, had been regular and normal, but since then it had been irregular and profuse. She had had a curettage and roentgen-ray treatments without any permanent effect. Upon digital examination on admission to the hospital, a handful of tumor masses was removed; these masses were protruding from the dilated cervix and felt like "boiled sago." A radical pan-hysterectomy was performed and since the operation she has had practically no symptoms and has improved in every way. The pathological report of the specimen calls attention to the fact that the myometrium is soft and flabby and the uterine cavity is filled by a tumor mass which is partly polypoid and partly grapelike and attached mainly to the posterior wall of the corpus. The most conspicuous feature in the microscopic appearance is the large amount of cartilage, which in a large number of the sections is the predominating tissue, and which is found in practically every section taken from the larger polypi and berries. Perlstein states it is evident that this growth is a chondrosarcoma of the endometrium. Two kinds of tissue are predominating; namely, cartilage and a loose connective tissue. In the latter the nuclei are far apart and the tissue is myxomatous in appearance. There are also sarcomatous areas and isolated glands of the endometrial type. Besides the grapelike structure and heterogeneous components of this type of tumor, its great malignancy is one of its characteristic features, which is manifested less by metastases than by local extension and by recurrence after operative removal, which often occurs very rapidly. At first they spread on the surface; the deeper tissues are infiltrated rather late. The vaginal tumors seem to have more inclination to infil-

trative growth into the deeper tissues than those of the cervix and uterus. Distant metastases are infrequent and late and as a rule do not contain heterogeneous tissue. Clinically it is difficult to differentiate these growths from other malignant tumors of the uterus. The most common symptom is irregular and profuse bleeding; frequently there is a vaginal discharge, which at first is watery or blood tinged, later becomes purulent and offensive. A positive diagnosis can only be made microscopically and when the diagnosis has been made with certainty, the prognosis is generally considered unfavorable.

**Radium Treatment of Menorrhagia.**—The management of the profuse menstruation in those cases in which no gross lesion is found, or in cases in which a small myoma exists, has not in the past been especially satisfactory. In some instances young persons respond to glandular medication, such as ovarian and thyroid extract and pituitrin and a few patients have improved after blood transfusion, and following the use of horse serum, but the effect, as a rule, has been that of temporary relief only. Curettement is seldom effective and should be tried only after medical treatment has failed. This type of menorrhagia in older persons has usually been treated by local medication and repeated curettements. In many of the cases in which a myoma is found, the conservative surgeon hesitates to submit the patient to so radical a procedure as a hysterectomy or even a myomectomy and in such cases radium should always be considered. STACY (*Minnesota Medicine*, 1919, ii, 88) has summarized the experiences with radium under these conditions as found in the Mayo Clinic, where this element has been used in 1915 in the treatment of the menorrhagia of the menopause, in cases which presented no gross pelvic lesion, and in those presenting a fibroid but with contra-indication to operation. Since then the types of cases treated have been increased, and now radium is considered the treatment of choice in all cases of the menorrhagia of the menopause in which the presence of carcinoma is definitely excluded, either by history or by a diagnostic curettement, and in those cases not presenting a large, soft myoma which is apt to later undergo degeneration. The radium is also used in cases of profuse menstruation of the young woman (1) when there is a small submucous fibroid, (2) when no gross pathological condition is demonstrable, and (3) in cases presenting a large myoma in which there is a definite surgical risk. However, they have not entirely replaced myomectomy with radium for the treatment of myomas in the patients between the ages of thirty and forty years. Of the 175 patients that were treated with radium from August, 1915, to December, 1917, there were 2 under twenty years of age, 34 from twenty-one to thirty years, 45 from thirty-one to forty, 91 from forty-one to fifty, and 14 were more than fifty years of age. Of this number 93 had had previous curettements, 37 had had more than one curettement, and 56 had undergone other pelvic operations. In 69 cases there were complications that were considered as relative, though not in every instance absolute contra-indications to operation. There were heart lesions in 34 cases, hypertension in 8, kidney lesion in 11, obesity in 8, and pulmonary tuberculosis in 6. Seventy-seven of the 175 cases had definitely palpable fibroids and it is interesting to note that 155 of the 175 patients were married women, and that of these only 25 had not been